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Full Name of Author — Nom complet de l'auteur

Sharon C Anderson

Date of Birth — Date de naissance
Apr 13/57

Country of Birth — Lieu de naissance
Canada

Permanent Address — Résidence fixe
General Delivery
Westlock, Alberta
T0G 2L0

Title of Thesis — Titre de la these
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University of Alberta

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1985

Name of Supervisor — Nom du directeur de thèse
Dr Zingle

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Irrational Beliefs and Perceived Job-Related Stress of Teachers

by

Sharon C. Anderson

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled Irrational Beliefs and Perceived Job-Related Stress of Teachers submitted by Sharon C. Anderson in partial fulfilment of the requirements for the degree of Masters of Education in Counselling Psychology.

.....

Supervisor

.....

.....

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Dedication

This thesis is dedicated with love to my newborn son Bradley and my husband Trevor: Bradley for providing the impetus to finally complete my masters degree by his then impending birth, and Trevor for his constant love and support despite the time and energy this pursuit took away from our life together.

Abstract

The relationship of irrational beliefs to perceived job-related stress was investigated. The teachers in the Westlock School Division comprised the population, with 122 of 129 teachers participating in the study by returning the questionnaires personally distributed to them. The questionnaire consisted of four parts: demographic data, the Adult Irrational Ideas (AII) Inventory, the Teacher Occupational Stress Factor Questionnaire (TOSFQ),and five single item measures, one of job-related stress and four of job-related dissatisfaction. To assess the degree to which variation in one variable was related to variation in another variable, the data were analyzed using Pearson product-moment and point biserial correlation coefficients. The significance level was set at .01. As was predicted, the level of irrational beliefs as measured by the AII was directly related to job-related stress as measured by both the TOSFQ and the single item measure of stress (SIMS). This finding is consistent with the theoretical position of Ellis (1962, 1978) and suggests the appropriateness of a rational-emotive therapy approach in treating stress.

Acknowledgement

The credit for this thesis does not belong to this author alone. It could not have been completed without the assistance of many individuals. The first of those deserving credit is Dr. Zingle. Not only did he support, encourage and provide direction for my efforts throughout this undertaking, but also the inception of the idea for this thesis was his. Next comes the other two members of my thesis committee, Dr. Janzen and Dr. Vargo. Each of them provided valuable insights and suggestions throughout the process of progressing from proposal to oral exam. Then comes the administration and staff of the Westlock School Division. The administration granted permission for the research to be conducted with their staff and an overwhelming 122 of the 129 staff members took the time and made the effort to complete the questionnaires distributed to them. Following this came Dr. Harley who answered my seemingly endless questions about the statistical treatment of the data and Gwen Halabisky who accessed the computer programs necessary for the statistical calculations. And finally there is George Carmichael who patiently assisted me to format the thesis on the computer. To all these individuals, I wish to express my sincere gratitude. Thank you one and all.

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CHAPTER 1

Introduction

In the first century A.D. Epictetus wrote in The Enchiridion: "Men are disturbed not by things, but by the view which they take of them". Many centuries later Shakespeare expressed this thought in Hamlet: "There's nothing good or bad but thinking makes it so". Thus when in 1955 Albert Ellis formulated his basic theory and practice of rational-emotive psychotherapy (RET), its central theme was not new. In keeping with his forerunners, Ellis (1962, 1973a, 1977a, 1979a, 1980) contends that human emotions are largely the result of thoughts and beliefs that individuals hold regarding situations, others, and themselves.

Ellis's theory has been put into practice since its inception and has developed a large foundation of empirical support for its propositions and tenets (for reviews see Ellis 1977c, 1979c). Clinically, it has been employed with a wide range of problems, for example: anxiety and adjustment disorders (Lipsky, Kassinove, & Miller, 1980), alcohol and drug abuse (Ellis, 1982), sexual fears (Beher-Zimmerman, 1982), anorexia nervosa (Kujoth, 1979), depression (Oliver, 1978), assertiveness (Howard & Tosi, 1978), marriage difficulties (McClellan & Stieper, 1973), vulnerability to criticism (Yu & Schill, 1976), and

aggressive temper outbursts (Mooney, 1980), to name a few. Indeed Ellis (1972) notes that "It is easier to state what kind of problems are *not* than the kind that *are* handled in RET" (p. 191). He continues on to describe those not appropriate for RET as being seriously out of touch with reality, brain damaged, or possessing low intellectual capabilities.

One problem area that has thus far received little research attention but certainly, as Ellis (1978) and Weinrach (1980) have argued, seems appropriate for RET is stress and occupational mental health. From Ellis's perspective, the vast majority of conditions are not stressful in their own right but rather vary greatly in stressfulness depending upon the interpretation of those individuals reacting to them. Ellis is not claiming that no circumstances have intrinsically stressful predicaments (e.g., starvation, extreme sleep deprivation, physical torture) but that for the by far more common circumstances (e.g., loss of a job, conflicts with peers or supervisors, time constraints) individuals create their own feelings of stress by the kind of beliefs they hold about these circumstances. When those beliefs are illogical, unempirical and unrealistic Ellis refers to them as irrational beliefs. He maintains these kinds of beliefs result in disturbed emotionality or, in this case, stress. The therapist's task then is to assist the individual in challenging and disputing these self-defeating irrational

beliefs, replacing them with rational beliefs. The outcome is a more positive emotional reaction, lower stress, together with its related physiological, cognitive, and behavioral components.

One of many occupational groups that has received increasing attention in recent years with respect to the stress suffered by its membership is teachers. The educational literature is replete with papers on teacher stress. However, over 70% of these articles are opinion-based essays stating that teaching is stressful and often suggesting coping strategies, yet citing no empirical evidence for their claims (Hiebert & Farber, 1984). The little empirical work that has been done has yielded confusing if not also conflicting reports as to both the extent of teacher stress and how to deal with this problem.

One study on teacher stress (Forman, 1982) employed a cognitive stress management intervention based on Ellis's (1962) and Meichenbaum's (1977) formulations. Finding reductions in self-reported anxiety and stress as a result of the treatment program, Forman concluded this provided support for the use of cognitive-behavioral techniques in stress management programs for teachers. While this does lend credence to the practical usefulness of RET with respect to reducing stress, it did not examine Ellis's premise that irrational beliefs are directly related to stress. The purpose of the present study was to fill this gap by investigating this hypothesized relationship between

irrational beliefs and stress. If Ellis is correct, one would expect that teachers experiencing more stress would demonstrate a stronger tendency to hold irrational beliefs related to teaching. Further, if as Weinrach (1980) argues "that the tendency to think irrationally is not typically limited to only one sphere of a client's life" (p. 210), one would expect stressed teachers to have a high level of irrational beliefs in general. Empirical validation of this hypothesis would lend further support to the advisability of employing techniques in stress seminars for teachers such as those outlined by Ellis (1962, 1975, 1978) and used by Forman (1982) to detect and dispute irrational beliefs.

The present research also explored auxiliary hypotheses. In the past, teacher stress has been assessed using a variety of stress measures. Arguing that dissatisfaction is an indicator of stress, dissatisfaction measures have also been employed to assess stress. By determining the relationship among stress measures and between stress and dissatisfaction measures, the present study examined whether they do indeed measure the same construct.

CHAPTER 2

Theory and Related Literature

The Concept of Stress

How one conceptualizes stress has significant implications for the research one does and the treatment one prescribes. From the onset, it is important to clarify that the emphasis in the present study was on stress as a negative reaction. Some authors have incorporated both negative and positive reactions into their concept of stress. Such formulations are not only counter-intuitive, they also tend to equate stress with arousal and ignore its other components. For example, Selye (1974, 1980) distinguishes between *eustress*, the pleasant stress of positive events and *distress*, the damaging stress of negative events. Selye continues on to argue in keeping with an arousal model that some stress (more correctly some arousal) facilitates performance. His position ignores that a positive event may actually cause *distress*, be detrimental, if an individual perceives he or she lacks the reportoire to cope with that event (cf. Hiebert, 1984).

Also important to clarify, is the distinction between *stress* and *stressor*. So often when refering to environmental agents the two are used interchangeably,

evoking much confusion. For this study's purposes, a *stressor* shall refer to a situation or condition perceived as stressful by the individual whereas *stress* shall refer to the individual's reaction.

Whether it is the stressor that defines a reaction as a stress response or whether it is the stress response that defines a situation as a stressor, depends upon which of three perspectives one assumes. The *stimulus perspective* focuses on certain situations (stressors) as inherently stress inducing and thus views a stress response as the direct result of such a situation. The *response perspective*, on the other hand, focuses on the idiosyncratic stress response and coping strategies of the individual and thus views a situation to be a stressor only when such a response occurs. The first does not account for why different people respond in different ways to the same situation, while the second does not account for why some situations are experienced across individuals as more stressful than others. A third alternative is an *interactional perspective*. As Lazarus (1980) has argued:

> Psychological stress resides neither in the situation nor in the person; it depends upon a transaction between the two. It arises from how the person appraises an event and adapts to it. Stress is what occurs when the demands of the environment, in the person's eyes, clearly exceed the resources of the person to handle them. (p. 60)

This perspective is supported by many other authors (e.g., Cameron & Meichenbaum, 1982; Goldfried, 1979; Hiebert, 1984; Martin, 1983; Turgeon, 1982), including Ellis (1978).

Assumption of this *interactional perspective* allows one to incorporate both the *stimulus* and *response* methods of treating stress as well as methods following specifically from this perspective. Thus this includes changing environmental situations (stressor management techniques), changing personal responses and ways of coping (stress management techniques), and as well changing appraisals and interpretations of situations (what might be termed stress avoidance techniques).

Most research on stress, and on teacher stress specifically, has been conducted from a *stimulus perspective*. As such it has focused on identifying situations that teachers find stressful so that these situations can be changed (Cichon & Koff, 1980; Clark, 1980; Dedrick, Hawkes, & Smith, 1981; Dunham, 1980; Feitler & Tokar, 1982; Kyriacou & Sutcliffe, 1978, 1979a; Manera & Wright, 1980, 1981; Needle, Griffin, & Svendson, 1981; Pettigrew & Wolf, 1982; Pratt, 1978; Svendson, 1981; Williams, 1981; Young, 1980). Unfortunately, the bulk of situations identified in these studies fall in the administrative, organizational domain outside the individual teacher's control. As well, what one teacher identifies as a stressful situation, another does not. Thus efforts to reduce teacher stress by environmental manipulation may not

be plausible or effective for the most part.

An alternative is to focus on altering personal responses and coping strategies: the stress management techniques of the *response perspective*. These include strategies directed at the physiological/emotional, behavioral, or cognitive components of the stress and coping response. Few studies have been conducted in this respect specifically regarding teacher stress.

Of those conducted, the bulk have been directed at altering the physiological/emotional component of the stress response. Employing strategies such as desensitization and relaxation training, aiming to develop a physiological response incompatible with high arousal, researchers have met with ambiguous results (Coates & Thoresen, 1976; Guzicki, Coates, & Goodwin, 1980). However Hiebert (1984) argued that "an extensive clinical history attesting to the utility of relaxation training for controlling stress with other client groups . . . . Suggests that some form of relaxation training should occupy a central role in any stress management program" (p.45). Diet and excercise have also been advocated as important in altering the physiological/emotional component of stress in teachers (Jorde, 1982; Truch, 1980; Turgeon, 1982; Welch, Medeiros, & Tate, 1982). Unfortunately no empirical work with teachers exists to support their claims.

Empirical work is also lacking to support the effectiveness of behavioral interventions in reducing

teacher stress or increasing their ability to cope with it. Time management courses and teacher effectiveness training fall under this rubric. Also included are those behavioral interventions that attempt to modify what has been termed Type A behavior (extremes of competitiveness, striving for achievement, impatience, haste, hyper alertness, tense facial musculature, explosive speech stylistics, aggressiveness, and chronic sense of time urgency) to Type B behavior (relaxed, easy going, satisfied pattern) (cf. Friedman & Rosenman, 1974; Howard, Cunningham, & Rechnitzer, 1978). Type A behavior has been linked to the stress literature by extensive prospective and retrospective research demostrating its predictiveness of what is considered a stress linked illness, premature coronary heart disease (for review see Rosenman & Friedman, 1983), and its tendency to emerge when an individual is challenged and/or placed under pressure (Glass, 1977). The typical behavioral intervention attempted with Type A behavior is to promote change by reinforcing behaviors indicating a relaxation and slowing of pace.

Cognitive interventions, more so than physiological/emotional or behavioral interventions, would seem to hold particular promise. The common characteristic of these cognitive stress management interventions is a focus on facilitating the development of thinking patterns that promote accurate appraisal of situational demands and positive support for one's own coping attempts. Note that

this means these cognitive techniques are directed at two levels. "Positive support for one's own coping attempts" falls under a stress management approach; that is, it seeks to change the stress response by facilitating coping responses. "The development of thinking patterns that promote accurate appraisal of situational demands" falls under a stress avoidance approach; that is, it seeks to avoid evoking unnecessary stress. As it is this latter aspect that is argued as being more central to cognitive interventions' successfulness (cf. Cameron & Meichenbaum, 1982; Ellis, 1962, 1978, 1980; Goldfried, 1979; Lazarus, 1967, 1980), they belong more appropriately to those methods of treatment specific to the *interactional perspective*.

This perspective views it possible to change not only situations (*stimulus perspective*) or responses and their related coping strategies (*response perspective*), but to change the mediating factors between stimulus and response. Cognitive interventions such as RET (Ellis, 1962) focus on these mediating factors. They seek to modify thoughts and beliefs to change how an individual appraises and interprets a situation. Rather than viewing some situation in catastrophic terms, the individual comes to view it as unpleasant and unfortunate. This in turn results in vast differences in stress and coping responses: In the first case, energy tends to be directed towards nonproductive emotional responses (e.g.,"Why does this have to happen to me? Poor me!"); whereas in the second case, opportunity is

afforded for more productive responses (e.g., "I don't like this and I can't change it but what can I do to work around it."). Weber (1983) has advocated such an approach, specifically RET, for modifying Type A behavior instead of the typical behavioral interventions. In keeping with RET, he found that in his sample of Virginian executives the endorsement of irrational beliefs as measured by Jones's (1968) Irrational Beliefs Test was directly related to Type A behavior as measured by the Jenkin's Activity Survey (1979). While it cannot be concluded from such a correlational study that irrationality causes Type A behavior or that the same relationship would be found for teachers on a self-report measure of stress, it still lends support to the potential usefulness of RET. More direct evidence for its usefulness in treating stress in teachers is given by Forman (1982). Using a cognitive-behavioral approach that included RET as an integral part of the treatment program, Forman found that self-reported anxiety and stress in her sample of urban South Carolina teachers decreased after training and decreased even further in the following six weeks. These findings support those studies conducted with other client groups demonstrating the effectiveness of cognitive based interventions in treating anxiety and stress (Beck, 1976; Cameron & Meichenbaum, 1982; Ellis, 1979c; Goldfried, Decenteceo, & Weinberg, 1974; Goldfried, 1979; Goldfried, Linehan, & Smith, 1978; Meichenbaum, 1975, 1977; Meichenbaum & Cameron, 1977;

Meichenbaum & Novaco, 1978; Meichenbaum, Turk, & Burnstein, 1975).

Ellis's Approach

A major proponent of a primarily cognitive approach is Albert Ellis (1962, 1973a, 1973b, 1975, 1977a, 1977b, 1978, 1979a, 1979b, 1979d, 1980). The central theme of Ellis's (1962) Rational-Emotive Therapy is that:

> [Man's] emotional or psychological disturbances are largely a result of his thinking illogically or irrationally; and that he can rid himself of most of his emotional or mental unhappiness, ineffectuality and disturbance if he learns to maximize his rational and minimize his irrational thinking. (p. 36)

Ellis explains this in his A-B-C theory of personality and emotion. This theory holds that it is rarely the stimulus A which directly causes the emotional reaction C in the individual. Rather, it is usually B the individual's beliefs about or interpretation of A that determines the reaction. Human emotion thus is proposed to be essentially an evaluative cognitive process, determined and sustained by the individual's beliefs through the form of self-talk (thinking). When the self-talk is based on irrational beliefs, beliefs that are illogical, unempirical and unrealistic, disturbed emotionality or anxiety is the result. The therapist's task then is to assist the client in challenging and disputing these self-defeating irrational

beliefs, replacing them with rational beliefs and the corresponding more logical and efficient self-talk. The result is a more positive emotional reaction as well as its related physiological, cognitive, and behavioral components.

This theory rests on certain assumptions about human nature (Ellis, 1973b, 1979d):

1. People are born with a potential for both rational, straight thinking and irrational, crooked thinking. They have both the propensity for self-preservation, happiness, thinking and verbalizing, loving, communion with others, and growth and self-actualization as well as the propensity for self-destruction, unhappiness, superstition and intolerance, perfectionism and self-blame, and the avoidance of actualizing growth potentials.
2. People have the biological tendency to think irrationally and needlessly disturb themselves. This tendency is frequently exacerbated by one's culture in general and one's family in particular. Although people are always more or less vulnerable to outside influences, this tendency is especially evident when one is a child.
3. People condition themselves to feel disturbed, rather than being conditioned by external sources. No matter what has occurred in the past, the main reason they are disturbed now is because of the irrational beliefs they hold. Emotional disturbance and illogical behavior is

maintained by their internal verbalization of their irrational thoughts and ideas. And then, given humans unique capacity to not only think but to think about their thinking they disturb themselves about their disturbances, immensely escalating their upset.

4. People have the capacity to change their cognitive, emotive, and behavioral processes. They can recognize that although experiences obviously have some influence, the "real" cause of their disturbance is themselves, the irrational beliefs they hold and keep reindoctrinating themselves with. Once accepting this they can, with hard work and practice, learn to vigorously and persistently dispute irrational beliefs, replacing them with rational beliefs so that they can eventually remain minimally disturbed for the rest of their lives.
5. People think, emote, and behave simultaneously and interactively. At one and the same time, they are cognitive, emotive and motoric. Each of thoughts, feelings, and actions significantly influence one another.

In short, the basic view of RET is that sustained negative emotions are by and large either a form of irrational thinking or the result of irrational thinking. Originally Ellis (1962) categorized the main irrational beliefs people hold under eleven headings. More recently Ellis (1977a, 1979d, 1980) lists three:

1. I *must* perform well and be approved of by virtually all

significant others. If I don't, it is *awful*, I *can't stand it*, and I am a *damnable*, *rotten person*. I *shouldn't* be less than perfect.

2. Others *must* treat me the way I want them to treat me. If they don't, it is *terrible*, I *can't bear it*, and they are *damnable*, *worthless* people. They *shouldn't* be this way.
3. Conditions under which I live *must* be the way I want them to be. If they are not it is *horrible*, I *can't tolerate* living in such a *damnable*, *awful* world. It *shouldn't* be this way.

These three "major musts" reflect Ellis's view that absolutistic and *must*urbatory thinking is invariably a strong element in the foundation of human problems. While not all irrational beliefs include a *should* or *must* and instead simply consist of unempirical or unrealistic statements, Ellis (1977a) argues that:

> [The irrationality of these beliefs] do not merely stem from your human tendency to see the world somewhat distortedly and to make antiempirical statements about what has happened and what probably will happen to you, but from your demanding, commanding statements about what *should* and *must* happen so that you can *absolutely* and *necessarily* get what you desire. (p. 9)

Ellis's approach clearly alligns with the interactional perspective of stress and its focus on the mediating factors between stimulus and response. His A-B-C theory of human

behavior closely resembles a S-O-R model: S the Stimulus becomes A the Activating Event, R the Response becomes C the Consequence (affective, behavioral, and cognitive) and O the Organism which mediates between the stimulus and the response becomes B the Belief System which mediates between the Activating Event and the Consequences (cf. Ellis, 1979d). In this conceptualization, A does not cause C although it may contribute significantly to it, instead it is B the individual's Belief System about A that more directly and importantly leads to ("causes") C. Stress thus is not the result of a stressor but rather the result of the individual's appraisal and interpretation of the stressor based on his or her system of beliefs.

This process can perhaps best be illustrated by example. The four possible combinations of holding a rational Belief System (rB) versus holding an irrational Belief System (iB) with reference to a positively appraised Activating Event (pA) versus a negatively appraised Activating Event (nA) and their respective Consequences are diagramed in Figure 1. From this figure one can see that whether an individual holds irrational or rational beliefs about a situation makes little or no difference when that situation is the way the individual would like it to be. However when a situation is not how an individual would like it to be, then the holding of irrational versus rational beliefs makes a significant difference in the consequences experienced. In the case of a rational belief system, the

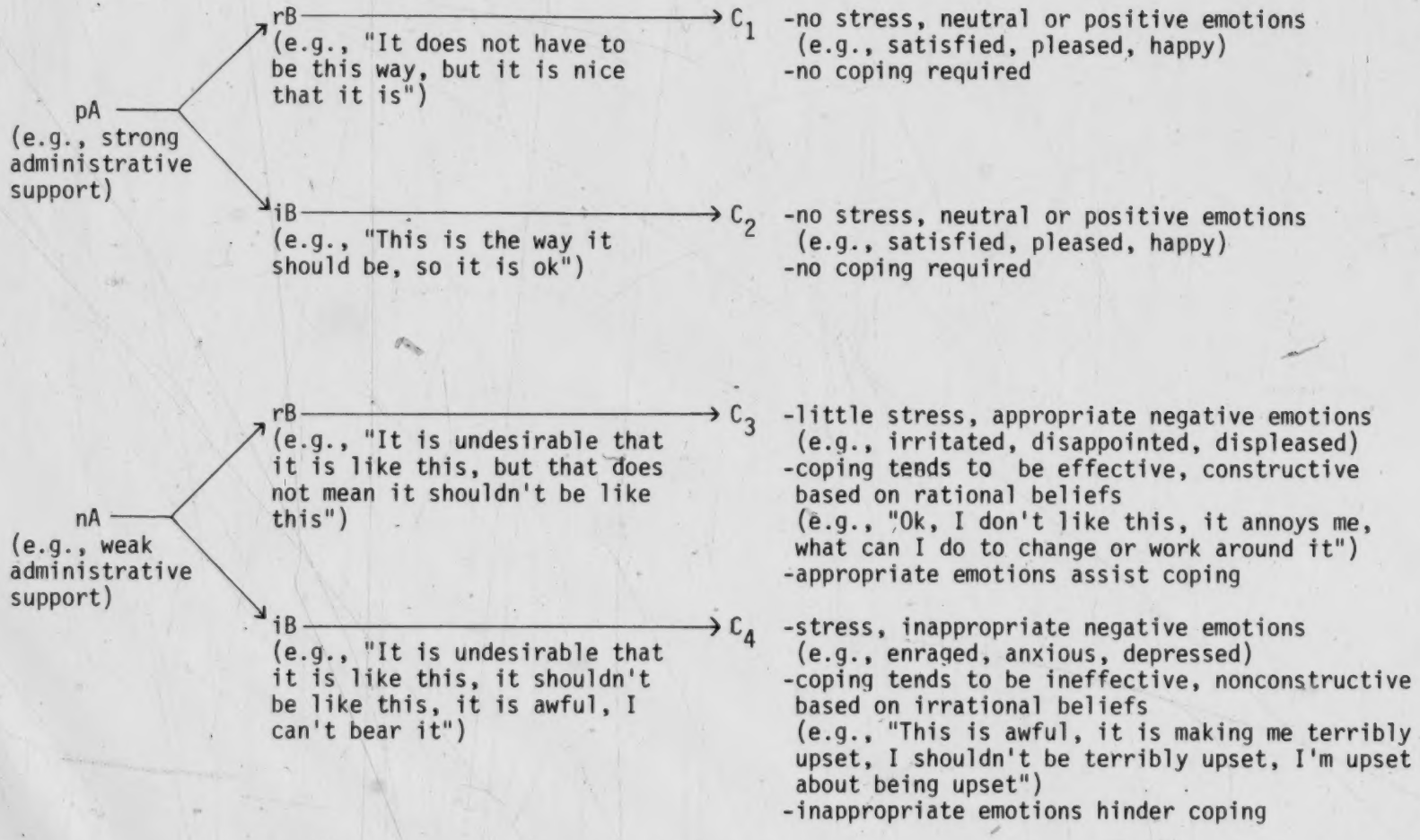
pA
(e.g., strong administrative support)
rB
(e.g., "It does not have to be this way, but it is nice that it is")
C1
-no stress, neutral or positive emotions
(e.g., satisfied, pleased, happy)
-no coping required
iB
(e.g., "This is the way it should be, so it is ok")
C2
-no stress, neutral or positive emotions
(e.g., satisfied, pleased, happy)
-no coping required
nA
(e.g., weak administrative support)
rB
(e.g., "It is undesirable that it is like this, but that does not mean it shouldn't be like this")
C3
-little stress, appropriate negative emotions
(e.g., irritated, disappointed, displeased)
-coping tends to be effective, constructive based on rational beliefs
(e.g., "Ok, I don't like this, it annoys me, what can I do to change or work around it")
-appropriate emotions assist coping
iB
(e.g., "It is undesirable that it is like this, it shouldn't be like this, it is awful, I can't bear it")
C4
-stress, inappropriate negative emotions
(e.g., enraged, anxious, depressed)
-coping tends to be ineffective, nonconstructive based on irrational beliefs
(e.g., "This is awful, it is making me terribly upset, I shouldn't be terribly upset, I'm upset about being upset")
-inappropriate emotions hinder coping

Figure 1. An illustration of Ellis's A-B-C model of human behavior: The Consequences (C) of holding a rational Belief System (rB) versus an irrational Belief System(iB) with respect to each of both a positively appraised Activating Event (pA) and a negatively appraised Activating Event (nA).

individual acknowledges the undesirability of the situation and appropriately experiences some negative emotion approximating displeasure. Often he or she will be motivated to change, avoid, or otherwise effectively deal with the situation. In contrast, in the case of an irrational belief system the individual does not just acknowledge but also catastrophizes the undesirability of the situation, illogically holding the empirically unvalidatable premise that it should not be so, is terrible and unbearable. The emotions experienced are inappropriate and extreme (e.g., anger, depression, and anxiety). In turn, perceiving these emotions as undesirable events in themselves, a vicious cycle begins of being upset about being so upset. The process is self-defeating, blocking or interfering with effective coping strategies. In short, when beliefs are rational, stress could be said to be avoided and is kept to a minimum; however when beliefs are irrational, stress is not only not avoided but is often exacerbated by those beliefs acting on the perception of stress itself.

Therefore, from a therapist's point of view, the most appropriate focus in dealing with clients experiencing stress is on replacing irrational beliefs with rational beliefs. To accomplish this, the most fundamental and common method RET employs consists of the therapist actively and directly disputing the client's irrational beliefs (for a review of other methods see Ellis, 1979b). As RET is a

didactic approach, emphasis is placed on teaching the client how to do this for him or herself. Obviously before an irrational belief can be disputed it must first be detected. This involves teaching individuals to look for *shoulds* or *musts*, *awfulizing*, *can't stand its*, and *damning* of self, others, or situations. Once having identified a possible irrational belief, the logico-empirical method of scientific questioning is used to dispute them. Ellis (1977a) talks of three kinds of cognitive restructuring: debating, discriminating, and defining. Debating involves asking what evidence one has for the truth or falseness of a given belief. Discriminating involves distinguishing between desires and demands, and noting the difference between undesirable and catastrophic events. And defining involves using terms more precisely to avoid semantic absolutes of overgeneralization such as *always*, *never*, *can't*, *have to*, etc. The end result, but only with persistent hard work and practice, is a rational belief system with its related emotive, cognitive, and behavioral effects. With respect to stress, this means its reduction and the removal of barriers to and interference with effective coping.

Extent of Teacher Stress

Several researchers have attempted to measure the extent of teacher stress by the percentage of teachers in surveys who reported experiencing their job as very or extremely stressful. Some of the values that have been

obtained are: 16% of an Ohio sample (Feitler & Tokar, 1982), 16.2% of a U.S.A. sample (NEA, 1967), 19.9% of an England sample (Kyriacou & Sutcliffe, 1978), 23% of a British Columbia sample (Clyne, 1983), 23.4% of an England sample (Kyriacou & Sutcliffe, 1979a), 29.3% of an England sample (Kyriacou & Sutcliffe, 1977), 30.4% of an England sample (Kyriacou & Sutcliffe, 1979b), 33% of a Saskatchewan sample (Syrotiuk & D'Arcy, 1983), and 33.5% of an Alberta sample (Williams, 1981). The conclusions drawn from these studies are not in unison. Some authors suggest their findings support, while others suggest they contradict, the position espoused by the popular press that teaching is a particularly stressful occupation.

Arguing that dissatisfaction with career choice is an indicator of job-related stress, some researchers have employed measures to tap this dimension. Holdaway (1978), in an Alberta survey, found that 83.7% of teachers were slightly, moderately, or highly satisfied with their occupation. In support of this, Williams (1981) found that less than 28% of a southern Alberta sample were dissatisfied with teaching as a career. Similarly Kyriacou & Sutcliffe (1979a) reported that 73.5% of their sample of teachers in England were very or fairly satisfied with their jobs. In contrast to these studies, Sparks's (1979) survey of Michigan teachers and a U.S.A. National Education Association survey (1980) respectively reported 46% and 44% of teachers were dissatisfied with teaching. In both these

studies, teachers were also asked if they had it all to do over again would they still become teachers: 46% (Sparks, 1979) and 41% (NEA, 1980) said "no". Moracco, Gray, & D'Arienzo (1981) and Moracco, D'Arienzo, & Danford (1983) in their studies of a Middle Atlantic State also asked this question. Of their respondents, 51-52% answered "no" and these teachers also perceived teaching to be more stressful than did those answering "yes". Williams (1981), using yet another proposed measure of job satisfaction, has found that teachers planning to leave the profession also perceive teaching to be more stressful than do their counterparts. In her Alberta survey, 33% of the respondents planned to leave teaching before retirement age. Excluding those up for retirement, 23.5% of teachers in Kyriacou and Sutcliffe's (1979a) British sample indicated it was fairly or very unlikely that they would still be teaching in ten years' time. Considerably higher percentages have been reported by other studies. The National Education Association (1980) found 57% of surveyed U.S.A. teachers planned to quit before retirement age and 9% planned to leave as soon as possible. 54% of Sparks's (1979) Michigan sample stated they were likely to change occupations in the next five years. Dedrick et al. (1981) reported that 57% of their sample of Iowa teachers had seriously considered a career change. Again, as with measures of perceived stress per se, measures of dissatisfaction have yielded varied conclusions as to the stressfulness of teaching.

Several articles and books (e.g., Hunter, 1977; Truch, 1980) would have one believe that teaching is one of the most stressful occupations, with the stress level comparable to that experienced by air traffic controllers and surgeons. Empirical comparative studies however have failed to substantiate these claims. Thus while studies such as that by Walsh (1979) reporting that 56.6% of 5,500 teachers responding to a Chicago survey claimed job-related mental and/or physical illness may signal alarm, Bentz, Hollister, & Edgerton (1971) in their U.S.A. study found no greater signs of mental ill-health among teachers than among community leaders or members of the general public. In support, Syrotuik & D'Arcy (1983) argue that "in comparison to other occupations, educators are neither the most nor the least stressed, but fall mid-way between these two extremes" (p.24). This was concluded even though 33% of the Saskatchewan teachers they surveyed viewed their job to be very or extremely stressful.

Thus while it still may be true as Dunham (1976) concludes, that "More teachers are experiencing stress" and "Severe stress is being experienced by more teachers" (p. 19), it cannot be concluded that teaching itself is a particularly stressful occupation. Instead what can be concluded and is consistent with all of the above research findings is that while some teachers do find their job to be stressful, others do not (cf. Dubois, 1978; Fergusson, 1984; Hiebert & Farber, 1984; Ruddy, 1983).

And why is this so? One possible explanation, and the answer favored by the theory and research reviewed here, is that the prevalence of irrational beliefs determines to a large extent the prevalence of perceived stress.

Hypotheses

The main purpose of this study is to investigate whether or not the level of job-related stress perceived by teachers is related to their tendency to hold irrational beliefs. On the basis of Ellis's theoretical position as outlined in this chapter, the following two primary hypotheses were made:

Primary Hypothesis 1

The level of perceived job-related stress as measured by the Teacher Occupational Stress Factor Questionnaire (TOSFQ) will vary directly with the level of irrational beliefs as measured by the Adult Irrational Ideas (AII) Inventory.

Primary Hypothesis 2

The level of perceived job-related stress as measured by the single item measure of overall job-related stress (SIMS) will vary directly with the level of irrational beliefs as measured by the Adult Irrational Ideas (AII) Inventory.

A secondary purpose of this study was to investigate whether or not measures of job dissatisfaction were indices of job-related stress. If they were, one would expect the

two measures, dissatisfaction and stress, to be directly related. One would also expect that different measures of stress would be directly related to one another and that different measures of dissatisfaction would be directly related to one another. On this basis, the following eight secondary hypotheses were made:

Secondary Hypothesis 1

The two measures of job-related stress, the single item measure of perceived overall job-related stress (SIMS) and the Teacher Occupational Stress Factor Questionnaire (TOSFQ), will be directly related.

Secondary Hypothesis 2

The level of perceived job-related stress as measured by both the Teacher Occupational Stress Factor Questionnaire (TOSFQ) and the single item measure of overall job-related stress (SIMS) will each vary directly with job dissatisfaction as measured by the single item measure of overall job dissatisfaction (SIMD).

Secondary Hypothesis 3

The level of perceived job-related stress as measured by both the Teacher Occupational Stress Factor Questionnaire (TOSFQ) and the single item measure of overall job-related stress (SIMS) will each vary directly with the unlikelihood of being a teacher in ten years' time as measured by the

single item asking this question (SIMB).

Secondary Hypothesis 4

The level of job dissatisfaction as measured by the single item measure of overall job dissatisfaction (SIMD) will vary directly with the unlikelihood of being a teacher in ten years' time as measured by the single item asking this question (SIMB).

Secondary Hypothesis 5

The level of perceived job-related stress as measured by both the Teacher Occupational Stress Factor Questionnaire (TOSFQ) and the single item measure of overall job-related stress (SIMS) will each vary directly with the indication that one would not become a teacher if given that choice to make again as measured by the single item asking this question (SIMT).

Secondary Hypothesis 6

The level of job dissatisfaction as measured by the single item measure of overall job dissatisfaction (SIMD) will vary directly with the indication that one would not become a teacher if given that choice to make again as measured by the single item asking this question (SIMT).

Secondary Hypothesis 7

The level of perceived job-related stress as measured by both the Teacher Occupational Stress Factor Questionnaire (TOSFQ) and single item measure of overall job-related stress (SIMS) will each vary directly with the intention to leave teaching before retirement age as measured by the

single item asking this question (SIMR).

Secondary Hypothesis 8

The level of job dissatisfaction as measured by the single item measure of overall job dissatisfaction (SIMD) will vary directly with the intention to leave teaching before retirement age as measured by the single item asking this question (SIMR).

To provide information to supplement that obtained by tests of the primary and secondary hypotheses, additional analyses were performed. These analyses explored the internal-consistency reliability of the Adult Irrational Ideas (AII) Inventory and the Teacher Occupational Stress Factor Questionnaire (TOSFQ), the descriptive statistics for each of the seven dependent measures, the relationship of the TOSFQ subtests to the AII Inventory and to the single item measure of overall job related stress (SIMS), and the relationship of the seven demographic variables to each of the seven dependent measures.

CHAPTER 3

Methodology

Sample

The population of teachers employed by the Westlock School Division of Alberta was selected to be surveyed in this study. Serving approximately 2,300 students this rural division includes: 1 senior high, 2 junior high, 2 elementary-junior-high, 2 kindergarten-elementary-junior high, 1 kindergarten-elementary, and 3 elementary schools. While the selection of this population as opposed to a sample of all Alberta or all Canadian teachers limits the generalizations that can be drawn from the study, the relevance of the findings for the Westlock School Division's teachers is clear. Further, as this researcher resides in the Westlock area, it was possible to personally appeal to teachers for their cooperation. As was anticipated this resulted in a high response rate: Of the 129 questionnaires distributed, 122 were returned yielding a return rate of 94.6%. This excellent response certainly exceeds the acceptable level for the sample to be considered representative of the population of Westlock School Division's teachers. Of the 122 teachers participating in the survey, 69 (or 57.0%) were females and 52 (or 43.0%)

were males. One teacher abstained from indicating his or her sex.

Instruments

A four part questionnaire was used (see Appendix A). The first part requested demographic information regarding sex, age, years of education as considered for salary purposes, major grade level taught, years of experience, whether part or full time, and whether teacher, vice principal or principal.

The second part consisted of the Adult Irrational Ideas (AII) Inventory (Davies & Zingle, 1970) based upon the eleven irrational beliefs put forth by Ellis (1962) and a previous form for adolescents, the Irrational Ideas (II) Inventory (Zingle, 1965a). Responses are recorded on a 5 point Likert-type scale which ranges from strongly agree to strongly disagree. Statements have been worded such that strong agreement is sometimes very rational and sometimes very irrational. The questionnaire's original 99 items were item analyzed, yielding a final 60 item version consisting of the most discriminating items. This form was then administered to 110 education students at the University of Alberta to assess its reliability. Using both Kuder-Richardson split-half and test-retest procedures, reliability estimates ranged from .74 to .78. Content validity assumptions are supported by its derivation from the II Inventory, item selection by the concurrence of two

judges familiar with Ellis's irrational beliefs, review by Ellis himself, and subjection to item analysis. Evidence of construct validity is provided by several sources. As the AII is the adult form of Zingle's original II Inventory, the construct validity established for it is applicable (cf. Conklin, 1965; Taft, 1968; Winship, 1972; Zingle, 1965b). Fox & Davies (1971) (see also Davies, 1970) administered both the II and AII Inventories to 51 high school students in Edmonton and found the scores correlated .70. Fox & Davies also analyzed the AII scores obtained from 82 psychiatric in-patients, 57 alcoholic in- and out-patients, and 113 "mentally healthy" members of the Edmonton population. While no difference was found between in- and out-patient alcoholics or between alcoholics and psychiatric in-patients, a significant difference was found between the "mentally healthy" individuals and both the mental hospital and alcoholic samples, with the latter two evidencing a greater prevalence of irrational beliefs. Vargo & Braun (1975) (see also Vargo, 1972), administering the AII to 65 psychiatric in-patients and 86 "mentally healthy" Edmonton people, also found the two samples to differ significantly in the predicted direction. Hearne (1971) administered the AII together with Super's Occupational Trait List (OTL) and Akridge's Ladder Test (LT) to college students at Louisiana Tech University. As predicted from Ellis's theory, he found irrationality to be related to both the discrepancy between real- and ideal-self as measured by the OTL and poor

self-identity as measured by the LT. Hearne identified a sex difference on AII scores with females scoring significantly higher in terms of irrational beliefs than males. Both Fox & Davies and Vargo & Braun identified a similar sex difference, but for their normal groups only. All three studies interpreted this in terms of sex role expectations. There exist at least seven other objective tests of irrational beliefs (Argabrite & Nidorf, 1968; Bard, 1973; Jones, 1968; Kassinove, Crisci, & Tiegerman, 1977; Laughridge, 1975; MacDonald & Games, 1972; Plutchik, 1976). Of these only Jones's (1968) Irrational Beliefs Test (IBT) comes close to the AII in terms of empirical evidence for its usefulness. The validity and reliability data for the IBT is comparable to that of the AII Inventory (Jones, 1968; Nolan, Boyd, & Grieger, 1980; Smith, 1982; Trexler & Karst, 1973; Weber, 1983; Woods, 1983). Given this, the choice between the two instruments was left to be made on practical grounds. As the AII and the author of its predecessor the II were more readily accessible to this researcher, it was selected.

The questionnaire's third part is composed of Clark's (1980) Teacher Occupational Stress Factor Questionnaire (TOSFQ). Responses to stimulus items are recorded on a 5 point Likert-type scale providing the alternatives of not, somewhat, considerably, decidedly, and extremely stressful. After the questionnaire's original 97 items were administered to 391 Georgia teachers, they were factor

analyzed by the principal components method. Both Kaiser's Varimax and oblique rotations were conducted, with Clark (1980) concluding that "the oblique solution was judged the best linear fit of the data" (p. v). Five factors emerged. Items failing to load at least .55 on any factor were eliminated, yielding a final questionnaire of 30 items. With a sample of 400 Alabama teachers the factored questionnaire was cross-validated. This second factor analysis again yielded 5 factors with the oblique rotation being the best fit of the 30 items. Clark thus concluded that job-induced stress as perceived by teachers is a multidimensional concept composed of five factors (in rank order of perceived stressfulness): Professional Inadequacy, Teacher-Principal Professional Relationships, Collegial Relationships, Group Instruction, and Job Overload. Cronbach's alpha reliability coefficients, ranging from .93 to .98, indicated high internal consistency of the 5 factors. Moracco et al. (1981,1982), using the same procedure as Clark, obtained partial support for the construct validity of the TOSFQ with a sample of 691 Middle Atlantic State teachers. Although not too major, item rearrangement resulted in 5 revised factors which Moracco et al. argued are more internally conceptually consistent (in rank order of perceived stressfulness): Administrative Support, Working with Students, Financial Security, Relationships with Teachers, and Task Overload. These revised factors are employed in the current study. The

internal-consistency reliability estimates using Cronbach's coefficient alpha ranged from .80 to .91. No test-retest reliability coefficients have been reported for the TOSFQ. Besides item analysis, the assumption of content validity is supported by the instrument's construction from an item pool derived from both the research literature and individual teacher interviews which further underwent independent screening by 5 teachers. The construct validity of the TOSFQ's 5 factors was supported in the literature reviewed by Clark (1980) in addition to cross-validation studies already described. Support for the TOSFQ's validity as a measure of stress is provided by Moracco et al. (1983). They found that teachers who would not become teachers if they had to make that decision again, compared to their counterparts, reported significantly more stress on the TOSFQ. Other questionnaires have been developed to measure stress in teachers (Cichon & Koff, 1980; Dedrick et al., 1981; Needle, Griffin, & Svendsen, 1981; Pratt, 1978; Williams, 1981; Young, 1980). Their focus however has assumed stress is prevalent and has gone about identifying and/or ranking sources of stress, but not allowing for the overall level of stress to be assessed. The TOSFQ, although it also examines sources of stress, does allow for examination of the overall level of perceived job-related stress to be assessed.

Other instruments used as measures or indicators of the level of perceived job-related stress have been single item

measures. Five of the more frequently employed of these measures make up the fourth part of the questionnaire. Of these only the single item measure of perceived overall job-related stress, SIMS (Kyriacou & Sutcliffe, 1977, 1978, 1979a, 1979b) is actually a stress measure. The other four single item measures arise from the argument that dissatisfaction with career choice is an indicator of job-related stress. They include self-reports of job dissatisfaction, SIMD (Kyriacou & Sutcliffe, 1979a), the unlikelihood of being a teacher in ten years' time, SIMB (Kyriacou & Sutcliffe, 1979a), the indication that one would not become a teacher if given that choice to make again, SIMT (Moracco et al., 1981,1983), and the intention to leave a career in the field of education before retirement age, SIMR (Williams, 1981).

Procedure

This researcher contacted each school principal to determine the best method of distributing the questionnaire to her or his staff. It was hoped that the researcher would be afforded the opportunity to meet with the school staff before or after regular school hours to distribute the questionnaire and to appeal for cooperation in completing it. With the assistance of a snowstorm which closed schools to students but left nearly all the staff available, this was possible in all cases. As this good fortune could not be foreseen, a covering letter had already been prepared and

attached to each questionnaire explaining the purpose of the study and requesting the teachers' support (see Appendix A). The completed instruments were asked to be sealed in envelopes provided for this purpose and to be ready to be collected from school principals in one week's time. This researcher distributed questionnaires on April 18, 19 and 22, 1985 and collected them all on April 30, 1985.

Statistical Treatment

To prepare the data for statistical treatment, responses to the questionnaire were transformed to computer readable format. The primary and secondary hypotheses of this study were tested using the Statistical Package for the Social Sciences program, SPSSx (1983). Pearson product-moment or point biserial correlation coefficients were computed between measures predicted to be related. In all cases, the bivariate correlation coefficients generated indicate the degree to which variation in one variable (e.g., irrational belief scores) is related to variation in another variable (e.g., perceived job-related stress scores).

To furnish further information beyond the test of the primary and secondary hypotheses, the data were subjected to supplementary analyses. First of all, the internal-consistency reliability of the AII and the TOSFQ were explored using the LERTAP program (1974). This provides both a Hoyt and a Cronbach's alpha for the

composite estimate of reliability. The Hoyt estimate does not recognize subtest boundaries while the Cronbach's alpha for the composite estimate does recognize subtest boundaries. In cases where there are no subtests (e.g., AII) the Cronbach's alpha for the composite estimate would be identical to the Hoyt estimate, as items would be taken as individual subtests. The second part of the supplementary analyses employed SPSSx to obtain descriptive statistics such as the range, mean, standard deviation, absolute frequency distribution, and valid percentage distribution for each of the seven dependent measures. The third and fourth part of the supplementary analyses involved using the SPSSx program for Pearson product-moment correlation coefficients. The third analysis explored the relationships between the TOSFQ subtests and each of the AII and SIMS, while the fourth analysis explored the relationship between each of the seven demographic variables and each of the seven dependent measures.

Recognizing that the statistical significance of a given correlation is determined by sample size, the criterion for significance was set more stringently at the outset at the .01 level. This means that given a sample size of 122, as in the present study, only correlations with absolute values of .24 or better will be considered significant. Had the significance level been set lower, other correlations may have obtained statistical significance but would have had little clinical significance

as they would account for so little of the variance. Even a correlation of .24 accounts for only 5.8% of the variance.

CHAPTER 4

Results

To assist the reader in interpreting the results, each hypothesis is restated and is followed by the relevant statistical findings and appropriate conclusion.

Primary Hypothesis 1

The level of perceived job-related stress as measured by the Teacher Occupational Stress Factor Questionnaire (TOSFQ) will vary directly with the level of irrational beliefs as measured by the Adult Irrational Ideas (AII) Inventory.

Findings

The Pearson product-moment correlation coefficient obtained between total scores on the TOSFQ and total scores on the AII was .31. This correlation is in the predicted direction and is significant beyond the .01 level.

Conclusion

Confirmation of Primary Hypothesis 1 was obtained. The level of perceived job-related stress as measured by the TOSFQ varied directly with the level of irrational beliefs as measured by the AII.

Primary Hypothesis 2

The level of perceived job-related stress as measured by the single item measure of overall job-related stress (SIMS) will vary directly with level of irrational beliefs as measured by the Adult Irrational Ideas (AII) Inventory.

Findings

The Pearson product-moment correlation coefficient obtained between scores on the SIMS and scores on the AII was .37. This correlation is in the predicted direction and is significant beyond the .01 level.

Conclusion

Confirmation of Primary Hypothesis 2 was obtained. The level of perceived job-related stress as measured by the SIMS varied directly with the level of irrational beliefs as measured by the AII.

Secondary Hypothesis 1

The two measures of perceived job-related stress, the single item measure of overall job-related stress (SIMS) and the Teacher Occupational Stress Factor Questionnaire (TOSFQ), will be directly related.

Findings

The Pearson product-moment correlation coefficient obtained between scores on the SIMS and scores on the TOSFQ was .49. This correlation is in the predicted direction and is significant beyond the .01 level.

Conclusion

Confirmation of Secondary Hypothesis 1 was obtained. The two measures of perceived job-related stress, SIMS and TOSFQ, are directly related.

Secondary Hypothesis 2

The level of perceived job-related stress as measured by both the Teacher Occupational Stress Factor Questionnaire (TOSFQ) and the single item measure of overall job-related stress (SIMS) will each vary directly with job dissatisfaction as measured by the single item measure of overall job dissatisfaction (SIMD).

Findings

The Pearson product-moment correlation coefficient obtained between scores on the TOSFQ and the SIMD was .41 and between scores on the SIMS and the SIMD was .55.

Conclusion

Confirmation of Secondary Hypothesis 2 was obtained. The level of perceived job-related stress as measured by both the TOSFQ and the SIMS varied directly with job dissatisfaction as measured by the SIMD.

Secondary Hypothesis 3

The level of perceived job-related stress as measured by both the Teacher Occupational Stress Factor Questionnaire (TOSFQ) and the single item measure of overall job-related stress (SIMS) will each vary directly with the unlikelihood

of being a teacher in ten years' time as measured by the single item asking this question (SIMB).

Findings

The Pearson product-moment correlation coefficient obtained between scores on the TOSFQ and the SIMB was .16. This correlation although in the predicted direction, was not significant at the .01 level. The Pearson product-moment correlation coefficient obtained between scores on the SIMS and the SIMB was .26. This correlation is in the predicted direction and is significant beyond the .01 level.

Conclusion

Only partial confirmation of Secondary Hypothesis 3 was received. The level of job-related stress on one measure, the SIMS, did vary directly with the unlikelihood of being a teacher in ten years' time on the SIMB. However, the level of job-related stress on the other measure, the TOSFQ, was not significantly related to the unlikelihood of being a teacher in ten years' time on the SIMB.

Secondary Hypothesis 4

The level of job dissatisfaction as measured by the single item measure of overall job dissatisfaction (SIMD) will vary directly with the unlikelihood of being a teacher in ten years' time as measured by the single item asking this question (SIMB).

Findings

The Pearson product-moment correlation coefficient obtained between the SIMD and the SIMB was .33. This correlation is in the predicted direction and is significant beyond the .01 level.

Conclusion

Confirmation of Secondary Hypothesis 4 was received. The level of job dissatisfaction as measured by the SIMD did vary directly with the unlikelihood of being a teacher in ten years' time as measured by the SIMB.

Secondary Hypothesis 5

The level of perceived job-related stress as measured by both the Teacher Occupational Stress Factor Questionnaire (TOSFQ) and the single item measure of overall job-related stress (SIMS) will each vary directly with the indication that one would not become a teacher if given that choice to make again as measured by the single item asking this question (SIMT).

Findings

The point biserial correlation coefficient obtained between the TOSFQ and the SIMT was .10. While this is in the predicted direction, this correlation is not significant at the .01 level. The point biserial correlation coefficient obtained between the SIMS and the SIMT was .32. This correlation is in the predicted direction and is significant beyond the .01 level.

Conclusion

Only partial confirmation of Secondary Hypothesis 5 was received. The level of job-related stress on one measure, the SIMS, did vary directly with the indication that one would not become a teacher if given that choice to make again on the SIMT. However the level of job-related stress on the other measure, the TOSFQ, was not significantly related to the indication that one would not become a teacher if given that choice to make again on the SIMT.

Secondary Hypothesis 6

The level of job dissatisfaction as measured by the single item measure of overall job dissatisfaction (SIMD) will vary directly with the indication that one would not become a teacher if given that choice to make again as measured by the single item asking this question (SIMT).

Findings

The point biserial correlation coefficient obtained between the SIMD and the SIMT was .49. This correlation is in the predicted direction and is significant beyond the .01 level.

Conclusion

Confirmation of Secondary Hypothesis 6 was obtained. The level of job dissatisfaction as measured by the SIMD did vary directly with the indication that one would not become a teacher if given that choice to make again as measured by the SIMT.

Secondary Hypothesis 7

The level of perceived job-related stress as measured by both the Teacher Occupational Stress Factor Questionnaire (TOSFQ) and the single item measure of overall job-related stress (SIMS) will each vary directly with the intention to leave teaching before retirement age as measured by the single item asking this question (SIMR).

Findings

The point biserial correlation coefficient obtained between the TOSFQ and the SIMR was .20. Although this correlation is in the predicted direction, it is not significant at the .01 level. The point biserial correlation coefficient obtained between the SIMS and the SIMR was .38. This correlation is in the predicted direction and is significant beyond the .01 level.

Conclusion

Only partial confirmation of Secondary Hypothesis 7 was received. The level of perceived job-related stress on one measure, the SIMS, did vary directly with the intention to leave teaching before retirement age on the SIMR. However, the level of perceived job-related stress on the other measure, the TOSFQ, was not significantly related to the intention to leave teaching before retirement age on the SIMR.

Secondary Hypothesis 8

The level of job dissatisfaction as measured by the single item measure of overall job dissatisfaction (SIMD) will vary directly with the intention to leave teaching before retirement age as measured by the single item asking this question (SIMR).

Findings

The point biserial correlation coefficient obtained was .22. Although in the predicted direction, this was not significant at the .01 level.

Conclusion

Confirmation of Secondary Hypothesis 8 was not obtained. The level of job dissatisfaction as measured by the SIMD was not significantly related to the intention to leave teaching before retirement age as measured by the SIMR.

See Appendix B for Table B-1 which summarizes the correlation coefficients obtained with respect to all of the Secondary Hypotheses.

Supplementary Analyses

Internal-Consistency Reliability of the AII and the TOSFQ

The Hoyt estimate of reliability obtained for the Adult Irrational Ideas (AII) Inventory was .85. For the Teacher Occupational Stress Factor Questionnaire (TOSFQ) the Hoyt estimate of reliability obtained for the total test was .93 and the Cronbach's alpha for the composite was .79. The

Hoyt estimates for the TOSFQ subtests are presented in Appendix C as Table C-1.

Descriptive Statistics for Each of the Seven Dependent Measures

The AII Inventory. The possible range of scores on the Adult Irrational Ideas Inventory is from 60 to 300. The obtained scores ranged from 109 to 219. The scores were approximately normally distributed with a mean of 157.44 and a standard deviation of 19.17. If one transforms this mean on the total test to a mean score on the 5 point scale (where 5 indicated the most irrational choice) the value obtained is 2.62.

The TOSFQ. The possible range of scores on the Teacher Occupational Stress Factor Questionnaire is from 30 to 150. The obtained scores were slightly negatively skewed with the scores ranging from 38 to 131. The mean was 70.10 with a standard deviation of 21.16. If one transforms this mean on the total test to a mean score on the 5 point scale the value obtained is 2.34. This indicates the mean response was between "somewhat stressful" and "considerably stressful" and closer to the former than the latter. In rank order, the TOSFQ subtests of Task Overload and Working with Students were perceived to be most stressful, followed by Relationships with Other Teachers and Administrative Support, and least stressful was Financial Security. See Appendix D for Table D-1 presenting mean scores on the 5 point scale for the subtests of the TOSFQ.

The SIMS. The possible range of scores on the single item measure of overall perceived job-related stress is from 1 to 5. See Appendix E for Table E-1 displaying the frequency and percentage distributions. The mean score was 3.03 with a standard deviation of .83. On the five point scale the label for a response of 3 is "moderately stressful". As discussed in Chapter 2, other studies have reported the percentage of teachers in their sample responding "very or extremely stressful" as an index of stress. In the current study this percentage was 28.9.

The SIMD. The possible range of scores on the single item measure of overall job dissatisfaction is from 1 to 5. See Appendix E for Table E-2 displaying the frequency and percentage distributions. The mean score was 2.00 with a standard deviation of .87. On the five point scale the label for a response of 2 is "fairly satisfied". As discussed in Chapter 2, previous studies have either reported the percentage of teachers responding "very or fairly satisfied" or the percentage responding "very or fairly dissatisfied". In this study, those percentages were 83.6 and 8.2 respectively.

The SIMB. The possible range of scores on the single item measure of the unlikelihood of being a teacher in ten years' time is from 1 to 5. See Appendix E for Table E-3 displaying the frequency and percentage distributions. The mean score was 2.88 with a standard deviation of 1.54. On the 5 point scale the label for responses of 2 and 3

respectively are "fairly likely" and "neither likely nor unlikely" that one would still be a teacher in ten years' time. As presented in Chapter 2, the previous study using this measure reported the total percentage of teachers responding "very or fairly unlikely" that one would still be a teacher in ten years' time as an index of dissatisfaction and/or stress. In this study that percentage was 39.4. Adjusting this figure for the approximately 10% of teachers up for retirement in the next ten years results in a corrected percentage of approximately 29.4.

The SIMT. This single item measure had only a choice of "yes" or "no" as replies to the question "If you had your life to live over, would you become a teacher?". The frequency and percentage distributions appear in Appendix E as Table E-4. The other studies using this measure, as presented in Chapter 2, used the percentage of teachers responding "no" as an index of dissatisfaction and/or stress. In this study that percentage was 29.2.

The SIMR. The single item measure asking "Do you plan to pursue a career in education until your normal retirement age?" had only a choice of "yes" or "no" as replies. The frequency and percentage distributions appear in Appendix E as Table E-5. The other studies using this measure, as presented in Chapter 2, used the percentage of teachers responding "no" as an index of dissatisfaction and/or

stress. In the current study this percentage was 38.1.

Relationship of TOSFQ Subtests to AII and SIMS The level of irrational beliefs as measured by the Adult Irrational Ideas (AII) Inventory varied directly ($p<.01$) with the level of perceived job-related stress arising from the TOSFQ subtests: Adminstrative Support (.25), Working with Students (.38), and Task Overload (.31). The TOSFQ subtests, Relationships with Other Teachers (.16) and Financial Security (-.03), were not significantly related to the level of irrational beliefs ($p>.01$).

The level of perceived job-related stress as measured by the single item measure of overall job-related stress (SIMS) varied directly ($p<.01$) with the level of perceived job-related stress arising from the TOSFQ subtests: Administrative Support (.38), Working with Students (.53), and Task Overload (.50). The TOSFQ subtests, Relationships with Other Teachers (.20) and Financial Security (.23), were not significantly related to the level of job-related stress on the SIMS ($p>.01$). See Appendix F for Table F-1 presenting the obtained correlations of each of the AII and the SIMS with the TOSFQ subtests. Also in Appendix F is a correlation matrix presenting the intercorrelations of the TOSFQ subtest scores displayed in Table F-2.

Relationship of the Demographic Variables to Each of the Seven Dependent Measures

The following demographic data were collected: Sex (female, male), Age (years), Teaching Experience (years),

Education (years as considered for salary purposes), Major Grade Level Taught (early childhood, elementary, junior high, high school), Current Teaching Load (part time, full time), and Teacher Type (teacher, vice principal, principal). As was appropriate, given the nature of the variables under consideration, either point biserial or Pearson product-moment correlation coefficients were calculated between each of these demographic variables and each of the seven dependent measures: AII, TOSFQ, SIMS, SIMD, SIMB, SIMT, and SIMR. Only 4 correlations out of the total 45 correlations were significant at or beyond the .01 level. The unlikelihood of still being a teacher in ten years' time as measured by the SIMB varied directly with both age (.39) and teaching experience (.30). The intention to leave teaching before retirement age as measured by the SIMR varied inversely with both age (-.24) and teaching experience (-.25). See Appendix G for Table G-1 presenting the obtained correlations between the demographic variables and the seven dependent measures. Also in Appendix G is Table G-2 displaying a correlation matrix of the intercorrelations among the demographic variables.

CHAPTER 5

Discussion, Implications, and Summary

Discussion

The main purpose of this study was to investigate whether or not the level of stress experienced by teachers is related to their tendency to hold irrational beliefs. As was predicted, the level of stress experienced by teachers is directly related to their tendency to hold irrational beliefs. This was true for each of the two measures of stress and their relationship to the measure of irrational beliefs. While the direction of causality can not be inferred from correlational analyses, these findings are consistent with Ellis's A-B-C theory of personality and emotion. As was outlined earlier, Ellis's theory holds that it is rarely the stimulus A which directly causes the emotional reaction C in the individual. Rather it is ussually B the individual's beliefs about or interpretation of A that determines his reaction C. When the individual's beliefs are irrational, disturbed emotionality or anxiety is the result. Indeed in the present study, as teachers demonstrated a stronger tendency to hold irrational beliefs, they also tended to report experiencing a higher level of job-related stress. This provides empirical support for

Ellis's (1978) and Weinrach's (1980) theoretical argument that rational-emotive therapy has applicability to stress and occupational mental health. It also provides theoretical underpinning for Forman's (1982) empirical work demonstrating the effectiveness of a cognitive and rational-emotive therapy based intervention in treating teacher stress.

A secondary purpose of the present study was to examine the validity of the assumption prevalent in the research literature that measures of job dissatisfaction can be used as indices of job-related stress. Before examining this, it seems appropriate to examine whether independent measures of stress per se are measuring the same construct. As was predicted, the two measures of stress employed in this study were directly related. However, the magnitude of this relationship was moderate rather than high, indicating some independence from one another in terms of what they measure. Which provides a "truer" measure of job-related stress cannot be determined from the present study's findings and is open for discussion. From an examination of each of the two stress measures' relationship to each of the four job dissatisfaction measures, it is evident that the single item measure of overall job-related stress (SIMS) tends to be more strongly related to job dissatisfaction than does the Teacher Occupational Stress Factor Questionnaire (TOSFQ). The TOSFQ was significantly and directly related to only overall job dissatisfaction (SIMD). Note that this means

the present study did not support Moracco et al.'s (1983) finding that teachers who would not become teachers if they had the choice to make over again (SIMT) reported significantly more stress (TOSFQ) than did their counterparts. The SIMS, unlike the TOSFQ, was not only related to the SIMD, but also related to the unlikelihood of being a teacher in ten years' time (SIMB), the indication that one would not become a teacher again (SIMT), and the intention to leave teaching before retirement age (SIMR). In other words, the relationships found in the present study with the TOSFQ indicate that measures of job dissatisfaction are poor (SIMB, SIMT, SIMR) to moderate (SIMD) indices of job-related stress, whereas relationships with the SIMS indicate that measures of job dissatisfaction are moderate (SIMB, SIMT, SIMR, SIMD) indices of job-related stress. Which conclusion one accepts relates directly back to the moot point of which of the two job-related stress measures is the more valid measure.

Underlying the above discussion is the assumption that measures of job dissatisfaction are indeed just that, measures of job dissatisfaction. To examine this, the relationship was explored of overall job dissatisfaction (SIMD) to each of the three other dissatisfaction measures: The unlikelihood of being a teacher in ten years' time (SIMB), the indication that one would not become a teacher if given that choice to make again (SIMT), and the intention to leave teaching before retirement age (SIMR).

Interestingly, the SIMD related at least as strongly to the two stress measures as it did to any of these three dissatisfaction measures. The strongest relationship of the SIMD with these three was with the SIMT. Intuitively it makes sense that teachers who would not become teachers if given that choice to make again (SIMT) are dissatisfied with their job and thus the relationship between overall job dissatisfaction and this measure. It is not as clear that teachers who view it as unlikely that they will be a teacher in ten years' time (SIMB) would be dissatisfied with their job. Perhaps they enjoy teaching but plan to leave it in the next ten years because they plan to stay home to raise their children. Alternatively older, more experienced teachers up for retirement in the next ten years would naturally indicate it was unlikely they would still be teaching whether they were satisfied with their job or not. Indeed in the supplementary analyses, support for this was found as the unlikelihood of still teaching in ten years' time was found to be directly related to age and teaching experience. Also it is possible that individuals possessing maturity and teaching experience may, as a result of these characteristics, see themselves as moving into administration. Misinterpreting the intent of the question by viewing teaching as not including administration, these teachers may also have replied that it was unlikely they would still be teachers in ten years' time regardless of their views about their job satisfaction. Given these

plausible interpretations, it would not be surprising then to find a weaker relationship of overall job dissatisfaction (SIMD) and this measure (SIMB), then between the SIMD and the SIMT. For the remaining measure of job dissatisfaction, the intention to leave a career in the field of education before normal retirement age (SIMR), no significant relationship with overall job dissatisfaction was found although the correlation was in the predicted direction. Again it is possible that some younger, less experienced teachers who enjoy teaching may plan to leave the field before they reach retirement age because they wish to remain at home with their children or simply wish to take an early retirement. Alternatively, some older and more experienced teachers may dislike teaching but because they have invested so much time and energy already, they plan to "hang in there" in order to receive full retirement benefits. Such arguments are in line with the supplementary analyses finding that age and teaching experience were each inversely related to the intention to leave a career in the field of education before retirement age (SIMR). In conclusion, the present study questions not only the validity of using the SIMB, SIMT, and SIMR as indirect indices of stress, but also the validity of using the SIMB and the SIMR as measures of job dissatisfaction.

One of the topics addressed in the supplementary analyses was the internal-consistency reliability of the Adult Irrational Ideas (AII) Inventory and the Teacher

Occupational Stress Factor Questionnaire (TOSFQ). The coefficients obtained for each of the instruments were uniformly high and comparable or better than those obtained by the authors who developed the instuments: AII, Fox & Davies (1971) and TOSFQ, Clark (1980) and Moracco et al., (1981, 1982). Thus, this lends credence to both the AII and the TOSFQ as internally reliable instruments.

Another topic addressed in the supplementary analyses was the descriptive statistics obtained for each of the seven dependent measures. This was done to allow for comparisons to be made between some of the findings of this study with previous studies. It is important to note that comparisons are made on a simply appearance basis and differences discussed should not be interpreted as having statistical significance as no such analysis was performed.

With respect to the Adult Irrational Ideas (AII) Inventory the mean obtained in this study (157.44) is nearly identical to the means obtained by Fox & Davies (1971) and Vargo & Braun (1975) for their representative sample of Edmontonians (157.66 and 159.45, respectively) and by Martin, Dolliver, & Irwin (1977) for their sample of University of Missouri-Columbia college students (153). This lends support to the AII's usefulness as a consistent instrument.

For the Teacher Occupational Stress Factor Questionnaire (TOSFQ) unfortunately, none of the authors using the instrument reported the mean scores they obtained.

Moracco et al. (1981, 1982) do however report the rank order they obtained for the perceived stressfulness of the TOSFQ subtests: Administrative Support, Working with Students, Financial Security, Relationships with Other Teachers, and Task Overload. The ranking of the TOSFQ subtests obtained in this study varied from the above in that Task Overload and Working with Students were perceived to be the most stressful, followed by Relationships with Other Teachers and Administrative Support, and then least stressful was Financial Security.

The SIMS asked teachers "In general, how stressful do you find being a teacher?". Responses of "very or extremely stressful" made up 28.9% of teachers replies in the current study. As was reported in Chapter 2, the nine other studies using this measure reported that from 16% to 33.5% (mean=25.0%) of teachers responded "very or extremely stressful". Thus teachers in the Westlock School Division appear to perceive moderately high job-related stress as compared to other populations sampled thus far. It is interesting to note that they do however appear to report slightly lower stress than a sample of southern Alberta teachers (mean=33.5%) surveyed by Williams (1981).

In terms of dissatisfaction, the SIMD asked teachers "Overall how satisfied are you with teaching as a job?". Of the teachers in the Westlock School Division, only 8.2% reported they were "very or fairly dissatisfied" while 83.6% reported they were "very or fairly satisfied". The latter

figure is nearly identical to that reported by Holdaway (1978) in his Alberta survey (83.7% "slightly, moderately, or highly satisfied") and somewhat higher than that reported by Kyriacou & Sutcliffe (1979a) in their England survey (73.5% "very or fairly satisfied"). Williams (1981) however found 28% of southern Alberta teachers were dissatisfied with teaching as a career, a figure seeming to indicate considerably higher dissatisfaction than is evident in the Westlock School Division.

Another measure of dissatisfaction, the SIMB, asks "how likely is it that you will still be a teacher in ten years' time?". Excluding those up for retirement, 23.5% of teachers in Kyriacou & Sutcliffe's (1979a) English sample responded "fairly or very unlikely". In the current study an estimate of this percentage was 29.4. This estimate was generated by subtracting from the total percentage of teachers responding "very or fairly likely" (39.4) the percentage of teachers estimated to be up for retirement in the next ten years (10). This was based on the logic presented earlier in this chapter that teachers up for retirement within the next ten years would be expected to indicate that it was unlikely they would be teaching in the next ten years. Support for this reasoning was found in the correlations obtained between the SIMB and the two demographic variables used in determining eligibility for retirement, age and teaching experience. As either age or teaching experience increased, the unlikelihood of still

teaching in ten years time also tended to increase. Even given these arguments, the figure remains an estimate and a comparison with other studies is of questionable validity.

In addition to the present study, three other studies employed the SIMT, asking "If you had your life to live over would you become a teacher? These U.S.A. studies, as reported in Chapter 2, found 41% to 52% (mean=46.3%) of teachers responded "no". Of Westlock School Division's teachers only 29.2% indicated they would not become teachers if given that choice to make again. On this measure of dissatisfaction then, Westlock teachers appear to be less dissatisfied with teaching than do their U.S.A. counterparts.

This conclusion also applies to findings with the SIMR. When asked "Do you plan to pursue a career in education until your normal retirement age?", only 38.1% of Westlock teachers replied "no". This figure although somewhat higher than the 33% obtained by Williams (1981) in a southern Alberta survey appears considerably lower than the 57% obtained by the National Education Association (1980) in their U.S.A. survey.

Three points need to be made with respect to all the descriptive statistics presented for each of the stress (TOSFQ & SIMS) and dissatisfaction (SIMD, SIMB, SIMT & SIMR) measures. First of all, it is open to question as to what might have resulted in the apparent differences between this and other studies findings regarding the perceived source or

level of job-related stress and/or dissatisfaction. It is suggested that without further information on the differences between the respective samples, school systems, procedures, time of year, political climate, etc. to attempt to provide an adequate explanation is foolhardy. Even with such information, it seems likely the possible explanations would be numerous and the valid conclusion remain a moot point. Secondly, it is important to note that whether stress or dissatisfaction was found to be relatively low or high in the current study does not support but neither does it dispute the claim that teaching is a particularly stressful occupation. Comparing a study on teachers with other studies on teachers does not address the question of how stressful teaching is relative to other occupations. Thirdly, in the current study just as in previous ones, the teachers did not all give identical responses. This demonstrates variability in the level of job-related stress and dissatisfaction they perceived. Thus, despite the differences between studies a consistent conclusion follows from all of them; that is, while some teachers do find their jobs to be stressful, others do not.

A third topic addressed in the supplementary analyses was the relationship of the Teacher Occupational Stress Factor Questionnaire's (TOSFQ) subtests to the Adult Irrational Idea (AII) Inventory, and the single item measure of overall job-related stress (SIMS). Interestingly, the three factors relating directly to the AII were the same

three factors that related directly to the SIMS and also in the same rank order of strength of relationship: Working with Students, Task Overload, and Administrative Support. That Financial Security and Relationships with Other Teachers were not significantly related to job-related stress on the SIMS suggests that they tended not to be perceived as sources contributing to overall stress, or in other words, they were not viewed as stressors. From Ellis's perspective as set out in Chapter 2, as the situations presented on these two subscales were viewed as "ok", there would be no cause for irrational beliefs to evoke cognitions about how awful they are and how they should not be like that, etc. and thus in turn no tendency to evoke a stress response. One would thus expect, just as was found, that the level of irrational beliefs held would not be related to these situations. On the other hand when situations were perceived as stressors, as sources contributing to overall stress on the SIMS such as Working with Students, Task Overload and Administrative Support, the level of irrational beliefs held would come into play. In an individual with an irrational belief system these situations viewed as "not ok" or "undesirable" would evoke cognitions about how awful it is that the situation is "not ok" and how the situation should not be "undesirable", etc. In turn, this would tend to evoke a stress response. In an individual with a rational belief system, these situations viewed as "not ok" or "undesirable" would evoke rational

beliefs such as although the situation is "not ok" I can try to change it or else work around it or although the situation is "undesirable" there is no reason it absolutely should not be like this, etc. In this case then little or no stress would be experienced by the individual. In summary, the TOSFQ subtests relationship to each of the AII and the SIMS is consistent with the major findings of this study, that the level of stress individuals experience is directly related to their tendency to hold irrational beliefs.

The final topic addressed in the supplementary analyses was the relationship of each of the demographic variables to each of the seven dependent measures. For the three major measures of this study (AII, TOSFQ, and SIMS), no significant relationship was obtained with any of the demographic variables. Note that this means the sex difference typically found on the AII (Fox & Davies, 1971; Hearne, 1971; Vargo & Braun, 1975) was not found in the current study. No tendency was observed for females to respond more irrationally than males. Perhaps this is a function of the sample being made up of only teachers or perhaps it is a function of a change in sex role socialization over the past ten to fifteen years. Of the four measures of job dissatisfaction (SIMD, SIMB, SIMT, and SIMR) only two were related to any of the demographic variables. As was addressed earlier in this chapter, the unlikelihood of still being a teacher in ten years (SIMB)

and the intention to leave teaching before normal retirement age (SIMR) were each related to age and teaching experience, the former directly and the latter inversely. These relationships were in part responsible for drawing into question the validity of the SIMB and the SIMR as measures of job dissatisfaction. The lack of any other significant findings between the seven demographic variables and the seven dependent measures suggests that irrational beliefs, job-related stress, and job dissatisfaction are independent of sex, age, teaching experience, education, major grade level taught, teaching load, and teacher type.

Implications

Clinical Implications

In typical stress seminars the focus is on identifying situations that teachers find stressful so these situations can be changed, or on examining the coping strategies to deal with the emotional response arising in these situations. The first involves changing the situations themselves (e.g., hiring more teachers, giving more preparation periods, removing difficult students from the school, etc.). The second involves changing the individual's way of coping with the stress response arising in these situations (e.g., exercise and diet programs, relaxation training, time management courses, teacher effectiveness training, etc.). A third approach, consistent with Ellis's perspective, is supported by the present study.

In this approach the focus is on interfering with the situation's ability to evoke a stress response by changing the individual's irrational beliefs to more rational ones (e.g., modifying excessively high expectations of self and others, teaching acceptance of what can not be changed and working from there, etc.). It is the position of this author that this third approach merits implementation along with the other two in any comprehensive stress seminar or stress counselling as so often situations cannot be changed and once a stress response is evoked the damage is done.

Research Implications

Several implications for further work are readily apparent. First, the assumption implicit in the clinical application advocated above needs to be addressed. Is stress indeed the result of irrational thinking or is irrational thinking the result of stress? Both conclusions are consistent with current findings. Thus in order to determine if the position favored by this author is valid, longitudinal research is required. This could be achieved by measuring individual's tendencies to hold irrational beliefs before they begin to teach and determining whether or not this is related to the level of job-related stress they experience once teaching. Another option would be to pretest for individuals' levels of irrational beliefs and stress, to employ rational-emotive therapy to reduce levels of irrational beliefs and then to posttest on both measures. From such a procedure one could, besides examining whether

irrational beliefs were reduced by rational-emotive therapy, determine whether if as the level of irrational beliefs decreased the level of stress decreased also.

Another avenue for research involves examining whether or not the tendency to hold irrational beliefs specifically about teaching would yield any stronger relationship to perceived job-related stress in teachers than does the tendency to hold irrational beliefs in general. The current study employed the latter measure based on Weinrach's (1980) argument that the tendency to hold irrational beliefs is not typically limited to one dimension of a person's life. Perhaps however, a measure more specifically examining the prevalence of irrational beliefs related to one dimension of a person's life might prove more useful in designing programs for or counselling in that dimension.

The present study was restricted to teachers and more specifically to teachers in the Westlock School Division. Thus a third area for exploration could involve generalizing the results of the present study to other populations. This would include determining the relationship between irrational beliefs and stress using samples of both other teachers and other occupations. Such analyses could be easily incorporated into comparative studies of various teacher or occupational groups. Comparative studies would also allow for clearer interpretation of differences between samples than the post hoc comparisons of findings from separate studies as was attempted in this study's

supplementary analyses.

On a fourth front, future efforts might be directed towards providing more validity information for the measures of job-related stress and dissatisfaction. Which is a more valid measure of job-related stress, the Teacher Occupational Stress Factor - Questionnaire (TOSFQ) or the single item measure of overall job-related stress (SIMS)? Three teachers noted on their questionnaire that they had been unclear as to how to reply to the TOSFQ items: Were they to reply in terms of if they would experience this would it be stressful or in terms of are they experiencing this and is it stressful? Also four teachers took the time to note that they thought the TOSFQ did not assess stress arising from some sources they viewed as important such as curriculum restrictions, evaluations of teachers, the devaluing of education by society, etc. Do such concerns represent threats to the validity of the TOSFQ? What about dissatisfaction measures? Is the single item measure of job dissatisfaction (SIMD) a valid measure? The SIMT? The SIMB? The SIMR? And so on.

No doubt other possibilities for research abound. These are intended as a sampling of those most closely associated to the current study's concerns.

Summary

This study represents one of the two empirical works exploring the applicability of rational-emotive therapy,

RET, to job-related stress per se. Unlike the other study which explored the efficiacy of RET in treating teacher stress, this study explored the evidence for the theoretical relationship of RET to teacher stress. The results indicated that the tendency to hold irrational beliefs was directly related to the tendency to perceive job-related stress. This is consistent with RET and suggests the appropriateness of using RET in treating job-related stress.

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Appendix A:

Covering Letter and Questionnaire

Spring 1985

TO ALL TEACHERS OF THE WESTLOCK SCHOOL DIVISION

Dear Colleague:

Your cooperation in completing the following questionnaire is central to the research I am conducting in connection with my masters program of studies in Educational Psychology at the University of Alberta. As this research is being conducted exclusively with the teachers of the Westlock School Division, your time and effort in providing the information requested is extremely important and would be greatly appreciated.

The questionnaire consists of four sections (Parts A to D). Part A requests basic demographic data. Part B is a survey of attitudes and beliefs. Part C is designed to identify the major sources of occupational stress experienced by teachers. And Part D includes questions directed at assessing overall job satisfaction and stress levels in teaching. The purpose of this study is to identify patterns of attitudes and beliefs among teachers as well as perceived sources and level of teacher stress. Implications drawn from the findings could then be used for the development of stress seminars and related coping strategies for the teaching profession.

Please be frank and honest in selecting your responses and answer all items. EACH INDIVIDUAL'S RESPONSES ARE ENSURED STRICTEST CONFIDENTIALITY. Your name is not requested and there are no identifying marks on any of the enclosed material. Therefore, there is no way in which I or anyone else can identify you from your anonymous response.

It will take about 25 minutes to complete the questionnaire. Follow the directions closely for each part. When you have completed the entire questionnaire, place it in the attached envelope, seal it, and give it to your school principal within one week.

Copies of the final thesis will be provided to your school board and your ATA local.

If you have any questions or concerns please do not hesitate to contact me by telephone at (403) 954 2340 or by mail at General Delivery, Westlock, Alberta, T0G 2L0.

Thank you very much for your cooperation.

Yours sincerely,

Sharon C. Anderson

PART A: DEMOGRAPHIC INFORMATION

This information is required to enable comparisons to be made among groups. Fill in the blank with the correct response or, as is appropriate, check (✓) the correct response. Please answer each item.

1. Sex: ___ Female
   ___ Male

2. Age: ___ (on last birthday)

3. Years of Education (as considered for salary purposes): ___

4. Major Grade Level Taught (check the best approximation):
   ___ Early Childhood (Pre-grade 1)
   ___ Elementary (Grades 1 to 6)
   ___ Junior High (Grades 7 to 9)
   ___ Senior High (Grades 10 to 12)

5. Years of Teaching Experience: ___(as of June 30, 1985)

6. Teaching Load: ___ Part time
   ___ Full time

7. Teacher Type: ___ Teacher
   ___ Vice Principal
   ___ Principal

PART B: ATTITUDES AND BELIEFS

Many articles have been written about the attitudes and beliefs of teachers without consulting teachers themselves. These questions are included to survey their true attitudes and beliefs by having teachers tell us directly about themselves. Read each of the following statements and indicate how much you agree or disagree by circling the appropriate letter:

A - I strongly agree
B - I agree
C - Undecided
D - I disagree
E - I strongly disagree

For example, say you "agree" with the statement, then you would circle the letter "B" for that statement.

Example item: Teachers are great. A B C D E

Let your own personal experience or opinion guide your choice of response -- There are no right or wrong answers. The best answer to each statement is your own first impression, therefore answer quickly. Please respond to every item.

1. Jeers humiliate me even when I know I am right. A B C D E

2. I worry about situations where I am being tested. A B C D E

A - I strongly agree
B - I agree
C - Undecided
D - I disagree
E - I strongly disagree

3.	The best way to teach a child right from wrong is to spank him when he is wrong.	A B C D E
4.	I must learn to "keep my head" when things go wrong.	A B C D E
5.	I think I am getting a fair deal in life.	A B C D E
6.	I worry about eternity.	A B C D E
7.	I am happiest when I am sitting around doing little or nothing.	A B C D E
8.	I prefer to be independent of others in making decisions.	A B C D E
9.	If a person is ill-tempered and moody, he will probably never change.	A B C D E
10.	I get very upset when I hear of people (not close relatives or friends) who are very ill.	A B C D E
11.	Crime never pays.	A B C D E
12.	My family and close friends do not take enough time to be acquainted with my problems.	A B C D E
13.	People who do not achieve competency in at least one area are worthless.	A B C D E
14.	We are justified in refusing to forgive our enemies.	A B C D E
15.	I frequently feel unhappy with my appearance.	A B C D E
16.	I feel that life has a great deal more happiness than trouble.	A B C D E
17.	I worry over possible misfortunes.	A B C D E
18.	I often spend more time in trying to think of ways of getting out of something than it would take me to do it.	A B C D E
19.	I tend to look to others for the kind of behavior they approve as right and wrong.	A B C D E
20.	Some people are dull and unimaginative because of defective training as a child.	A B C D E
21.	Helping others is the very basis of life.	A B C D E

A - I strongly agree
B - I agree
C - Undecided
D - I disagree
E - I strongly disagree

22. School promotions should be for intellectual merit alone. A B C D E

23. It is very important to me when I do a good job to be praised. A B C D E

24. I find it difficult to take criticism without feeling hurt. A B C D E

25. It is terribly upsetting the way some students seem to be constantly protesting about one thing or another. A B C D E

26. It is impossible at any given time to change one's emotions. A B C D E

27. I tend to worry about possible accidents and disasters. A B C D E

28. I need to learn how to keep from being too assertive or too bold. A B C D E

29. To cooperate with others is better than doing what you feel should be done. A B C D E

30. Sympathy is the most beautiful emotion of man. A B C D E

31. People who criticize the government are either ignorant or foolish. A B C D E

32. I wish that more affection were shown by members of my family. A B C D E

33. When a person is no longer interested in doing his best, he is done for. A B C D E

34. I get very angry when I miss a bus which passes only a few feet away from me. A B C D E

35. My place of employment and/or my neighborhood provide adequate opportunity for me to meet and make friends. A B C D E

36. I can walk past a grave yard alone at night without feeling uneasy. A B C D E

37. I avoid inviting others to my home because it is not as nice as theirs. A B C D E

A - I strongly agree
B - I agree
C - Undecided
D - I disagree
E - I strongly disagree

38. I prefer to have someone with me when I receive bad news.	A B C D E
39. It is necessary to be especially friendly to new co-workers and neighbors.	A B C D E
40. The good person is usually right.	A B C D E
41. Sometimes I feel that no one loves me.	A B C D E
42. I worry about little things.	A B C D E
43. Riches are a sure basis for happiness in the home.	A B C D E
44. I can face a difficult task without fear.	A B C D E
45. I usually try to avoid doing chores which I dislike doing.	A B C D E
46. I like to bear responsibilities alone.	A B C D E
47. Other peoples' problems frequently cause me great concern.	A B C D E
48. It is sinful to doubt the bible.	A B C D E
49. It makes me very uncomfortable to be different.	A B C D E
50. I get terribly upset and miserable when things are not the way I would like them to be.	A B C D E
51. I find that my occupation and social life tends to make me unhappy.	A B C D E
52. I am afraid in the dark.	A B C D E
53. Many people that I know are so unkind or unfriendly that I avoid them.	A B C D E
54. It is better to take risks and to commit possible errors, than to seek unnecessary aid of others.	A B C D E
55. I get disturbed when neighbors are very harsh with their little children.	A B C D E
56. I find it very upsetting when important people are indifferent to me.	A B C D E

A - I strongly agree
B - I agree
C - Undecided
D - I disagree
E - I strongly disagree

57. I have sometimes had a nickname which upset me. A B C D E

58. I have sometimes crossed the street to avoid meeting some person. A B C D E

59. When a friend ignores me I become extremely upset. A B C D E

60. My feelings are easily hurt. A B C D E

PART C: SOURCES AND LEVELS OF OCCUPATIONAL STRESS

All of us occasionally feel bothered or stressed by certain kinds of things in our work. Indicate the extent to which each of the items on the following pages is stressful to you in your job by circling the appropriate number:

0 - Not stressful
1 - Somewhat stressful
2 - Considerably stressful
3 - Decidedly stressful
4 - Extremely stressful

For example, if you feel the item is say "considerably stressful" to you then you would circle the number "2" for that item.

Example item: Supervising exams 0 1 2 3 4

Respond rapidly to each item. Mark your first impression and do not spend a lot of time on any one item. Please respond to every item.

1. Trying to motivate students who do not want to learn 0 1 2 3 4

2. Feeling my salary is not equal to my duties and responsibilities 0 1 2 3 4

3. Feeling there is a lack of administrative support for teachers in my school 0 1 2 3 4

4. Working in a school where there is an atmosphere of conflict among teachers 0 1 2 3 4

5. Having students in my class/classes who talk constantly 0 1 2 3 4

6. Having to do school work at home to meet what is expected of me 0 1 2 3 4

7. Feeling my principal lacks insight into classroom problems 0 1 2 3 4

0 - Not stressful
1 - Somewhat stressful
2 - Considerably stressful
3 - Decidedly stressful
4 - Extremely stressful

8. Feeling some teachers in my school are incompetent	0 1 2 3 4
9. Feeling too many parents are indifferent about school problems	0 1 2 3 4
10. Feeling my opinions are not valued by my principal	0 1 2 3 4
11. Feeling there is competition among teachers in my school rather than a team spirit of cooperation	0 1 2 3 4
12. Having to tell my students the same things over and over	0 1 2 3 4
13. Having insufficient opportunity for rest and preparation during the school day	0 1 2 3 4
14. Working for an inadequate salary	0 1 2 3 4
15. Feeling my principal gives me too little authority to carry out the responsibilities assigned to me	0 1 2 3 4
16. Planning and organizing learning activities for wide ability ranges	0 1 2 3 4
17. Feeling there is a lack of recognition for good teaching in my school	0 1 2 3 4
18. Feeling poor teacher-teacher relationships exist in my school	0 1 2 3 4
19. Feeling that a few difficult to discipline students take too much of my time away from the other students	0 1 2 3 4
20. Feeling I can not tell my principal in an open way how I feel about many school related matters	0 1 2 3 4
21. Feeling my students do not adequately respond to my teaching	0 1 2 3 4
22. Having too little clerical help	0 1 2 3 4
23. Having a few teachers in my school who do not carry their share of the load	0 1 2 3 4
24. Feeling I do not have adequate control of my students	0 1 2 3 4

0 - Not stressful
1 - Somewhat stressful
2 - Considerably stressful
3 - Decidedly stressful
4 - Extremely stressful

25. Feeling there is a lack of parental involvement in solving school discipline problems 0 1 2 3 4

26. Feeling my principal is too aloof and detached from the classroom 0 1 2 3 4

27. Feeling that cliques exist among teachers in my school 0 1 2 3 4

28. Feeling my job does not provide the financial security I need 0 1 2 3 4

29. Feeling I never catch up with my work 0 1 2 3 4

30. Feeling that poor communications exist among teachers in my school 0 1 2 3 4

PART D: GENERAL

For each of the following questions, please check (✓) the one response which most accurately fits you.

1. In general, how stressful do you find being a teacher?
   ___ Not at all stressful
   ___ Mildly stressful
   ___ Moderately stressful
   ___ Very stressful
   ___ Extremely stressful

2. If you had your life to live over, would you become a teacher?
   ___ Yes
   ___ No

3. How likely is it that you will still be a school-teacher in ten years' time?
   ___ Very unlikely
   ___ Fairly unlikely
   ___ Neither likely nor unlikely
   ___ Fairly likely
   ___ Very likely

4. Do you plan to pursue a career in education until your normal retirement age?
   ___ Yes
   ___ No

5. Overall, how satisfied are you with teaching as a job?
   ___ Very dissatisfied
   ___ Fairly dissatisfied
   ___ Neither satisfied nor dissatisfied
   ___ Fairly satisfied
   ___ Very satisfied

THANK YOU AGAIN FOR YOUR COOPERATION. YOUR TIME AND EFFORT WAS GREATLY APPRECIATED.

Appendix B:

Correlations Obtained for Secondary Hypotheses

Table B-1

Pearson Product-Moment or Point Biserial Correlation Coefficients Between the TOSFQ, SIMS and SIMD, and all Six Dependent Measures of Stress or Dissatisfaction

	TOSFQ	SIMS	SIMD	SIMB	SIMT	SIMR
TOSFQ		.49*	.41*	.16	.10	.20
SIMS			.55*	.26*	.32*	.38*
SIMD				.33*	.49*	.22

*$p < .01$

Appendix C:

Internal-Consistency Reliability of the TOSFQ

Table C-1

Hoyt Estimates of Internal-Consistency Reliability Coefficients for the TOSFQ

Subtest	No. of Items	Hoyt Estimate
Administrative Support	7	.92
Relationships with Other Teachers	7	.88
Working with Students	8	.85
Financial Security	3	.81
Task Overload	5	.78
Total Test	30	.93

Appendix D:

TOSFQ Subtests' Mean Scores

Table D-1

Mean Scores on the Five Point Scale for TOSFQ Subtests

Subtest	Mean Score
Administrative Support	2.12
Relationships with Other Teachers	2.16
Working with Students	2.64
Financial Security	1.86
Task Overload	2.69
Total Test	2.34

Note. Values on the Five Point Scale of the TOSFQ are:

1 Not at all stressful

2 Somewhat stressful

3 Considerably stressful

4 Decidedly stressful

5 Extremely stressful

Appendix E:

Frequency and Percentage Distributions for the Five Single Item Measures of Stress or Dissatisfaction

For the five tables that make up this appendix, E-1 through E-5, when a question did not receive a reply or when the reply was unscoreable for some other reason (e.g., two replies were given) the item was scored as "missing". The number of "missing" responses to a particular question is shown in the frequency data but was not included in percentage calculations; thus, the headings of Absolute Frequency and Valid Percentage.

Table E-1

Frequency and Percentage Distribution for SIMS: "In general, how stressful do you find being a teacher?"

	Absolute Frequency	Valid Percentage
Not at all stressful	2	1.7
Mildly stressful	30	24.8
Moderately stressful	54	44.6
Very stressful	32	26.4
Extremely stressful	3	2.5
Missing	1	

Table E-2

Frequency and Percentage Distribution for SIMD: "Overall, how satisfied are you with teaching as a job?"

	Absolute Frequency	Valid Percentage
Very dissatisfied	2	1.6
Fairly dissatisfied	8	6.6
Neither satisfied nor dissatisfied	10	8.2
Fairly satisfied	70	57.4
Very satisfied	32	26.2
Missing	0	

Table E-3

Frequency and Percentage Distribution for SIMB: "How likely is it that you will still be a teacher in ten years' time?"

	Absolute Frequency	Valid Percentage
Very unlikely	29	23.8
Fairly unlikely	19	15.6
Neither likely nor unlikely	12	9.8
Fairly likely	32	26.2
Very likely	30	24.6
Missing	0	

Table E-4

Frequency and Percentage Distribution for SIMT: "If you had your life to live over, would you become a teacher?"

	Absolute Frequency	Valid Percentage
Yes	85	70.8
No	35	29.2
Missing	2	

Table E-5

Frequency and Percentage Distribution for SIMR: "Do you plan to pursue a career in education until your normal retirement age?"

	Absolute Frequency	Valid Percentage
Yes	73	61.9
No	45	38.1
Missing	4	

Appendix F:

Correlations Obtained Between TOSFQ Subtests and AII and SIMS, and Intercorrelations Between TOSFQ Subtests

Table F-1

Pearson Product-Moment Correlation Coefficients Between AII and SIMS Scores and TOSFQ Subtest Scores

Subtests	AII	SIMS
Administrative Support	.25*	.38*
Relationships with Other Teachers	.16	.20
Working with Students	.38*	.53*
Financial Security	-.03	.23
Task Overload	.31*	.50*

*$p < .01$.

Table F-2

Pearson Product-Moment Correlation Coefficients Between TOSFQ Subtest Scores

	AS	RWOT	WWS	FS	TO
Adminstrative Support		.60*	.55*	.47*	.49*
Relationships with Other Teachers			.44*	.32*	.34*
Working with Students				.38*	.59*
Financial Security					.41*
Task Overload					

*$p < .01$.

Note. Headings of columns are made up of the initials of the various TOSFQ subtests. The titles of the subtests are shown in the table's far left hand column.

Appendix G:

Correlations Obtained Between Demographic Variables and the Seven Dependent Measures and Intercorrelations Between Demographic Variables

Table G-1

Point Biserial or Pearson Product-Moment Correlation Coefficients Between Demographic Variables and the Seven Dependent Measures

	AII	TOSFQ	SIMS	SIMD	SIMB	SIMT	SIMR
Sex	-.16	-.05	-.07	.07	-.14	**	**
Age	-.06	-.08	-.20	-.06	.39*	.12	-.24*
Teaching Experience	-.02	.01	-.12	.02	.30*	.08	-.25*
Education	-.12	-.01	-.12	.00	-.21	-.06	-.17
Major Grade Level Taught	-.02	.12	.07	.23	.07	.15	.03
Teaching Load	-.03	.08	.02	.04	.08	**	**
Teacher Type	-.22	-.06	-.07	-.13	-.11	-.02	-.21

*$p < .01$.

** These correlation coefficients are omitted as neither point biserial nor Pearson product-moment correlation coefficients can be appropriately calculated using two dichotomous variables.

Table G-2

Point Biserial or Pearson Product-Moment Intercorrelations Among Demographic Variables

	S	A	TE	E	MGLT	TL	TT
Sex		.14	.28*[1]	.30*[3]	.32*[4]	**	.31*[7]
Age			.86*[2]	-.06	.04	.21	.16
Teaching Experience				.08	.05	.30*[5]	.19
Education					.18	.08	.29*[8]
Major Grade						.27*[6]	-.03
Level Taught							
Teaching Load							.13
Teacher Type							

*$p < .01$.

** This correlation coefficient is omitted as neither point biserial nor Pearson product-moment correlation coefficients can be appropriately calculated using two dichotomous variables.

Note. Headings of columns are made up of the initials of

the various demographic variables. The titles of these variables are shown in the table's far left hand column.

[1]As teaching experience increases, the tendency to be male increases (and vice versa). [2]As teaching experience increases, the tendency to be older increases (and vice versa). [3]As education increases, the tendency to be male increases (and vice versa). [4]As the major grade level taught becomes higher, the tendency to be male increases (and vice versa). [5]As teaching load increases from part to full time, teaching experience tends to be higher (and vice versa). [6]As teaching load increases from part to full time, the major grade level taught tends to be higher (and vice versa). [7]As teacher type moves up from teacher to vice principal to principal, the tendency to be male increases (and vice versa). [8]As teacher type moves up from teacher to vice principal to principal, education tends to be higher (and vice versa).